AMENDMENTS

In the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (withdrawn): A composition comprising an antigen binding fragment of an antibody, wherein the antibody specifically recognizes C-antigen, wherein C-antigen is the antigen specifically recognized by an antibody comprising a H chain V region having the amino acid sequence of SEQ. ID NO:2 and a L chain V region having the amino acid sequence of SEQ ID NO:5.

Claim 2 (withdrawn): The composition according to claim 1, wherein the antigen binding fragment is selected from the group consisting of whole native antibodies, bispecific antibodies, chimeric antibodies, Fab, F(ab')2, single chain V region fragments (scFv) and fusion polypeptides, wherein the fusion polypeptide comprises the antigen binding fragment fused to a chemically functional moiety.

Claim 3 (withdrawn): The composition according to claim 2 wherein the whole native antibody is a αC antibody.

Claim 4 (withdrawn): The composition according to claim 3, wherein the αC antibody is designated H11 and comprises H chains having the amino acid sequence of SEQ ID NO:2 and a L chain having the amino acid sequence of SEQ ID NO: 5.

Claim 5 (withdrawn): The composition according to claim 2, wherein the scFv is substantially the same as SEQ ID NOS:14 and 17.

Claim 6 (withdrawn): The composition according to claim 2, wherein the moiety is selected from the group consisting of signal peptides, agents that enhance immunologic reactivity, agents that facilitate coupling to a solid support, vaccine carriers, bioresponse modifiers, toxins, detectable labels, paramagnetic labels, and drugs.

Claim 7 (withdrawn): The composition according to claim 6, wherein the signal peptide is prokaryotic or eukaryotic.

Claim 8 (withdrawn): The composition according to claim 7, wherein the signal peptide is eukaryotic.

Claim 9 (withdrawn): The composition according to claim 6, wherein the agent that enhances immunologic reactivity is a bacterial super antigen.

Claim 10 (withdrawn): The method according to claim 6, wherein the agent that facilitates coupling to a solid support is selected from the group consisting of biotin and avidin.

Claim 11 (withdrawn): The composition according to claim 6, wherein the immunogen carrier is selected from the group consisting of any physiologically acceptable buffer.

Claim 12 (withdrawn): The composition according to claim 6, wherein the bioresponse modifier is a cytokine.

Claim 13 (withdrawn): The composition according to claim 12, wherein the cytokine is selected from the group consisting of tumor necrosis factor, interleukin-2, interleukin-4, interleukin-12, granulocyte macrophage colony stimulating factor and γ-interferons.

Claim 14 (withdrawn): The composition according to claim 6, wherein the drug is an antineoplastic agent selected from the group consisting of radioisotopes, vinca alkaloids,

adriamycin, bleomycin sulfate, Carboplatin, Cisplatin, cyclophosphamide, Cytarabine, Dacarbazine, Dactinomycin, Duanorubicin hydrochloride, Doxorubicin hydrochloride, Etoposide, fluorouracil, lomustine, Mechlororethamine hydrochloride, melphalan, mercaptopurine, methotrexate, mitomycin, mitotane, pentostatin, pipobroman, procarbaze hydrochloride, streptozotocin, taxol, thioguanine and Uracil mustard.

Claim 15 (withdrawn): The composition according to claim 14, wherein the vinca alkaloid is selected from the group consisting of vinblastine sulfate, vincristine sulfate and vindesine sulfate.

Claim 16 (withdrawn): The composition according to claim 6, wherein the toxin is selected from the group consisting of ricin, radionuclides, pokeweed antiviral protein, Pseudomonas exotoxin A, diphtheria toxin, ricin A chain, restrictocin and phospholipase enzymes.

Claim 17 (withdrawn): The composition according to claim 16, wherein the detectable label is selected from the group consisting of radioisotopes, fluorescent compounds, colloidal metals, chemiluminescent compounds, bioluminescent compounds, enzymes, substrates, cofactors and inhibitors.

Claim 18 (withdrawn): A polypeptide comprising at feast five consecutive amino acid residues of SEQ ID NOS:2 or 5.

Claim 19 (withdrawn): The polypeptide according to claim 18, wherein the five consecutive amino acid residues are from a CDR.

Claim 20 (withdrawn): The polypeptide according to claim 18, further comprising a heterologous immunoglobulin C region.

Claim 21 (withdrawn): A humanized antibody comprising the polypeptide according to claim 18.

Claim 22 (withdrawn): A polymeric peptide comprising a plurality of the peptide according to claim 18.

Claim 23 (withdrawn): The composition according to claim 1, further comprising a pharmaceutically acceptable excipient.

Claim 24 (withdrawn): The composition according to claim 23, wherein the excipient is a liposome preparation.

Claim 25 (withdrawn): An immunogenic composition comprising the antigen binding fragment according to claim 1, further comprising a pharmaceutically acceptable excipient and an amount of an adjuvant effective to enhance the immune response.

Claim 26-38 (Canceled)

Claim 39 (withdrawn): A method of treating a patient with a neoplasia comprising administering to the patient an effective amount of the antigen binding fragment according to claim 1.

Claim 40 (withdrawn): The method according to claim 39, wherein the individual has a clinically detectable tumor.

Claim 41 (withdrawn): The method according to claim 39, which is a method for palliating the neoplasia.

Claim 42 (withdrawn): The method according to claim 39, wherein a tumor that was previously detected in the individual has been treated and is clinically undetectable at the time of the administering of the antigen binding fragment.

Claim 43 (withdrawn): The method according to claim 39, which is a method of reducing the risk of recurrence of a clinically detectable tumor.

Claim 44 (withdrawn): The method according to claim 39, wherein administration of the antigen binding fragment is by parenteral administration selected from the group consisting of subcutaneous, intramuscular, intraperitoneal, intracavity, intrathecal, transdermal, or intravenous injection.

Claim 45 (withdrawn): The method according to claim 39, wherein the administration is at a dosage of about 0.01 mg/kg/dose to about 2000 mg/kg/dose.

Claim 46 (withdrawn): The method according to claim 39, wherein the antigen binding fragment is labeled with a therapeutic moiety.

Claim 47 (withdrawn): The method according to claim 46, wherein the therapeutic moiety is selected from the group consisting of radioisotopes, antineoplastic agents, immunomodulators, biological response modifiers, lectins and toxins.

Claim 48 (withdrawn): A composition comprising substantially purified C-antigen, wherein C antigen is the antigen specifically recognized by an antibody comprising a H chain V region having the amino acid sequence of SEQ ID NO:2 and a L chain V region having the amino acid sequence of SEQ ID NO: 5.

Claim 49 (withdrawn): The composition according to claim 48, wherein the C-antigen is present in an immunogenic amount and further wherein the composition includes an amount of adjuvant effective to enhance an immune response to the C antigen.

Claim 50 (withdrawn): A method for detecting C-antigen in a sample, comprising the steps of:

a) contacting the sample with the antigen binding fragment according to claim 1 under conditions that permit the formation of a stable antibody-antigen complex; and

b) detecting any stable complex formed in step a)

wherein C-antigen is the antigen specifically recognized by an antibody comprising a H chain having the amino acid sequence of SEQ ID NO:2 and a L chain V region having the amino acid sequence of SEQ ID NO:5.

Claims 51-85 (canceled)

Claim 86 (currently amended): An isolated polynucleotide comprising a sequence that encodes an antigen binding polypeptide wherein the polypeptide comprises ~~the amino acid sequence of the~~ an H chain V region or [[the]] an L chain V region of the polypeptide encoded by the nucleic acid sequence as shown in SEQ ID NO: 13, and wherein the antigen binding polypeptide specifically recognizes a cancer cell surface antigen and does not recognize a normal non-cancerous cell surface antigen.

Claim 87 (previously presented): The polynucleotide of claim 86, wherein said antigen binding polypeptide specifically recognizes any one or more of at least glioma, melanoma, breast carcinoma, lung carcinoma, ovarian carcinoma, lymphoma, gastric carcinoma, colon carcinoma or prostate carcinoma cells.

Claims 88-89 (canceled)

Claim 90 (currently amended): The polynucleotide of claim 86, wherein the polynucleotide encodes either or both of the amino acid sequences of the H chain V region and the L chain V region of the polypeptide as shown in SEQ ID N0:[[13]] 14.

Claim 91 (canceled)

Claim 92 (currently amended): [[The]] An isolated polynucleotide ~~of claim 86~~, wherein the polynucleotide is maintained in a stable duplex under stringent conditions with a ~~complement of~~ a second polynucleotide, wherein the second polynucleotide encodes an antigen binding polypeptide comprising ~~the amino acid sequences of the~~ an H chain V region or [[the]] an L chain V region of the polypeptide encoded by the nucleic acid sequence as shown in SEQ ID NO: 13, wherein stringent conditions comprise 0.1X SSC, 75% formamide, and incubation at 68°C, and wherein said polynucleotide encodes an antigen binding polypeptide that specifically recognizes a cancer cell surface antigen and does not recognize a normal non-cancerous cell surface antigen.

Claims 93-94 (canceled)

Claim 95 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises a CDR region of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 96 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises at least one of the H chain CDR1, CDR2, or CDR3 of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 97 (currently amended): The polynucleotide of claim ~~86 or 87~~ 96, wherein the antigen binding polypeptide comprises the H chain [[CDR3]] CDR2 of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 98 (currently amended): The polynucleotide of claim ~~86 or 87~~ 96, wherein the antigen binding polypeptide comprises the H chain CDR3 of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 99 (currently amended): The polynucleotide of claim ~~86 or 87~~ 96, wherein the antigen binding polypeptide comprises the H chain CDR2 and CDR3 of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 100 (canceled)

Claim 101 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises the L chain CDR3 of the polypeptide as shown in SEQ ID NO: [[13]] 14.

Claim 102 (canceled)

Claim 103 (currently amended): The polynucleotide of claim 86 or 87, ~~wherein the antigen binding polypeptide comprises~~ comprising the ~~polypeptide~~ polynucleotide as shown in SEQ ID NO:13.

Claim 104 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises a variable region of the polypeptide as shown in SEQ ID NO:[[13]] 14.

Claim 105 (currently amended): The polynucleotide of claim[[s]]86 or 87, wherein the polynucleotide further encodes at least one ~~chemically~~ functional moiety.

Claim 106 (currently amended): The polynucleotide of claim 105, wherein the at least one ~~chemically~~ functional moiety is selected from the group consisting of a signal peptide, an agent

that enhances immunologic reactivity, an agent that facilitate coupling to a solid support, a carrier, a bioresponse modifier, a toxin, a detectable label, and a drug.

Claim 107 (previously presented): The polynucleotide of claim 106, wherein the signal peptide is prokaryotic.

Claim 108 (previously presented): The polynucleotide of claim 106, wherein the agent that enhances immunologic reactivity is a bacterial superantigen.

Claim 109 (previously presented): The polynucleotide of claim 106, wherein the bioresponse modifier is a cytokine.

Claim 110 (previously presented): The polynucleotide of claim 106, wherein the chemically functional moiety is a toxin selected from the group consisting of ricin, pokeweed antiviral protein, Pseudomonas exotoxin A, diphtheria toxin, ricin A chain, restrictocin, and phospholipase enzymes.

Claim 111 (previously presented): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide is selected from the group consisting of whole native antibodies, bispecific antibodies, chimeric antibodies, Fab, F(ab')2, single chain V region fragments (scFv) and fusion polypeptides.

Claim 112 (previously presented): The polynucleotide of claim 86 or 87, wherein said antigen binding polypeptide is an antigen binding polypeptide of a human antibody.

Claims 113-114 (canceled)

Claim 115 (previously presented): A cloning vector comprising a polynucleotide of claim 86 or 87.

Claim 116 (previously presented): An expression vector comprising a polynucleotide of claim 86 or 87.

Claim 117 (previously presented): A host cell comprising a polynucleotide of claim 86 or 87.

Claim 118 (previously presented): A composition comprising a polynucleotide of claim 86 or 87.

Claim 119 (withdrawn): A process for making a polynucleotide of claim 86 or 87 comprising preparing the polynucleotide using one or method selected from: chemical synthesis, nucleic acid amplification, and recombinant cloning methods.

Claim 120 (withdrawn): A process for making an antigen binding polypeptide by expressing a polynucleotide of claim 86 in a host cell.

Claim 121 (previously presented): A polynucleotide encoding a diabody comprising an antigen binding polypeptide according to claim 86 or 87.

Claim 122 (previously presented): A polynucleotide encoding a dimer comprising an antigen binding polypeptide according to claim 86 or 87.

Claim 123 (previously presented): The polynucleotide according to claim 86 or 87 wherein the antigen binding polypeptide does not specifically recognize any one of normal non-cancerous adrenal, bladder, cervix, esophagus, eye, heart, kidney, liver, muscle, pancreas, parotid, pituitary, small intestine, spinal cord, spleen, thymus, thyroid, testis, or uterus cells.

Claim 124 (previously presented): A polynucleotide encoding a plurality of polypeptides according to claim 86 or 87.

Claim 125 (previously presented): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide is a humanized antigen binding polypeptide.

Claim 126 (previously presented): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises a heterologous immunoglobulin constant region.

Claim 127 (currently amended): The polynucleotide of claim 86 or 87, wherein the polynucleotide encodes a ScFv or antibody to a cancer cell surface epitope, wherein the ScFv or antibody is comprised of the amino acid sequences of the H chain V region and the L chain V region of the polypeptide as shown in SEQ ID NO: [[13]] 14, and wherein the antigen binding polypeptide specifically recognizes a cancer cell surface antigen and does not recognize a normal non-cancerous cell surface antigen.

Claim 128 (previously presented): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide is a polypeptide derivative or a functionally equivalent fragment of the ScFv or antibody.

Claim 129 (previously presented): The polynucleotide of claim 86 or 87, wherein said antigen binding polypeptide comprises a H or L chain CDR1, CDR2, or CDR3 which consists of the amino acid sequence of the corresponding CDR of said scFv or antibody or with exception of one or more deletions, additions or substitutions relative to the amino acid sequence, while having substantially the same specificity of the scFv or antibody.

Claim 130 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises at least a portion of a variable region of [[the]] a scFv or antibody as shown in SEQ ID NO:[[13]] 14 such that said antigen binding polypeptide retains the specificity of the scFv or antibody.

Claim 131 (canceled)

Claim 132 (currently amended): The polynucleotide of claim 86 or 87, wherein the antigen binding polypeptide comprises an amino acid sequence for at least one CDR which plays a role in the specificity of the antibody as shown in SEQ ID NO:[[13]] 14.

Claim 133 (canceled)

Claim 134 (currently amended): An isolated polynucleotide comprising a sequence that encodes an antigen binding polypeptide, wherein said polypeptide comprises ~~the amino acid sequence of the~~ an H chain CDR3 that is encoded by the nucleic acid sequence as shown in SEQ ID NO:13, and wherein the antigen binding polypeptide specifically recognizes a cancer cell surface antigen and does not recognize a normal non-cancerous cell surface antigen.

Claim 135 (currently amended): An isolated polynucleotide comprising a sequence that encodes an antigen binding polypeptide, wherein said polypeptide comprises ~~the amino acid sequence of the~~ an L chain CDR3 that is encoded by the nucleic acid sequence as shown in SEQ ID NO:13, and wherein the antigen binding polypeptide specifically recognizes a cancer cell surface antigen and does not recognize a normal non-cancerous cell surface antigen.

Claim 136 (previously presented): The isolated polynucleotide of claim 134 or 135, wherein said antigen binding polypeptide specifically recognizes any one or more of at least glioma, melanoma, breast carcinoma, lung carcinoma, ovarian carcinoma, lymphoma, gastric carcinoma, colon carcinoma or prostate carcinoma cells.

Claim 137 (previously presented): The isolated polynucleotide of claim 134 or 135, wherein said antigen binding polypeptide is selected from the group consisting of whole native antibodies, bispecific antibodies, chimeric antibodies, Fab, F(ab')2, single chain V region fragments (scFv) and fusion polypeptides.

Claim 138 (currently amended): The isolated polynucleotide of claim 134 or 135, wherein the polynucleotide further encodes at least one ~~chemical~~ functional moiety.

Claim 139 (currently amended): The isolated polynucleotide of claim 138, wherein the at least one ~~chemically~~ functional moiety is selected from the group consisting of a signal peptide, an agent that enhances immunologic reactivity, an agent that facilitates coupling to a solid support, a carrier, a bioresponse modifier, a toxin, a detectable label, and a drug.

Claim 140 (currently amended): The isolated polynucleotide of claim [[138]] 139, wherein the signal peptide is prokaryotic.

Claim 141 (currently amended): The isolated polynucleotide of claim [[138]] 139, wherein the agent that enhances immunologic reactivity is a bacterial superantigen.

Claim 142 (currently amended): The isolated polynucleotide of claim [[138]] 139, wherein the bioresponse modifier is a cytokine.

Claim 143 (currently amended): The polynucleotide of claim 138, wherein the ~~chemically~~ functional moiety is a toxin selected from the group consisting of ricin, pokeweed antiviral protein, Pseudomonas exotoxin A, diphtheria toxin, ricin A chain, restrictocin, and phospholipase enzymes.

Claim 144 (currently amended): A vector comprising a polynucleotide of claim 86, 103, 134 or 135.

Claim 145 (currently amended): A host cell comprising a polynucleotide of claim 103, 134 or 135.

Claim 146 (currently amended): A composition comprising a polynucleotide of claim 103, 134 or 135.